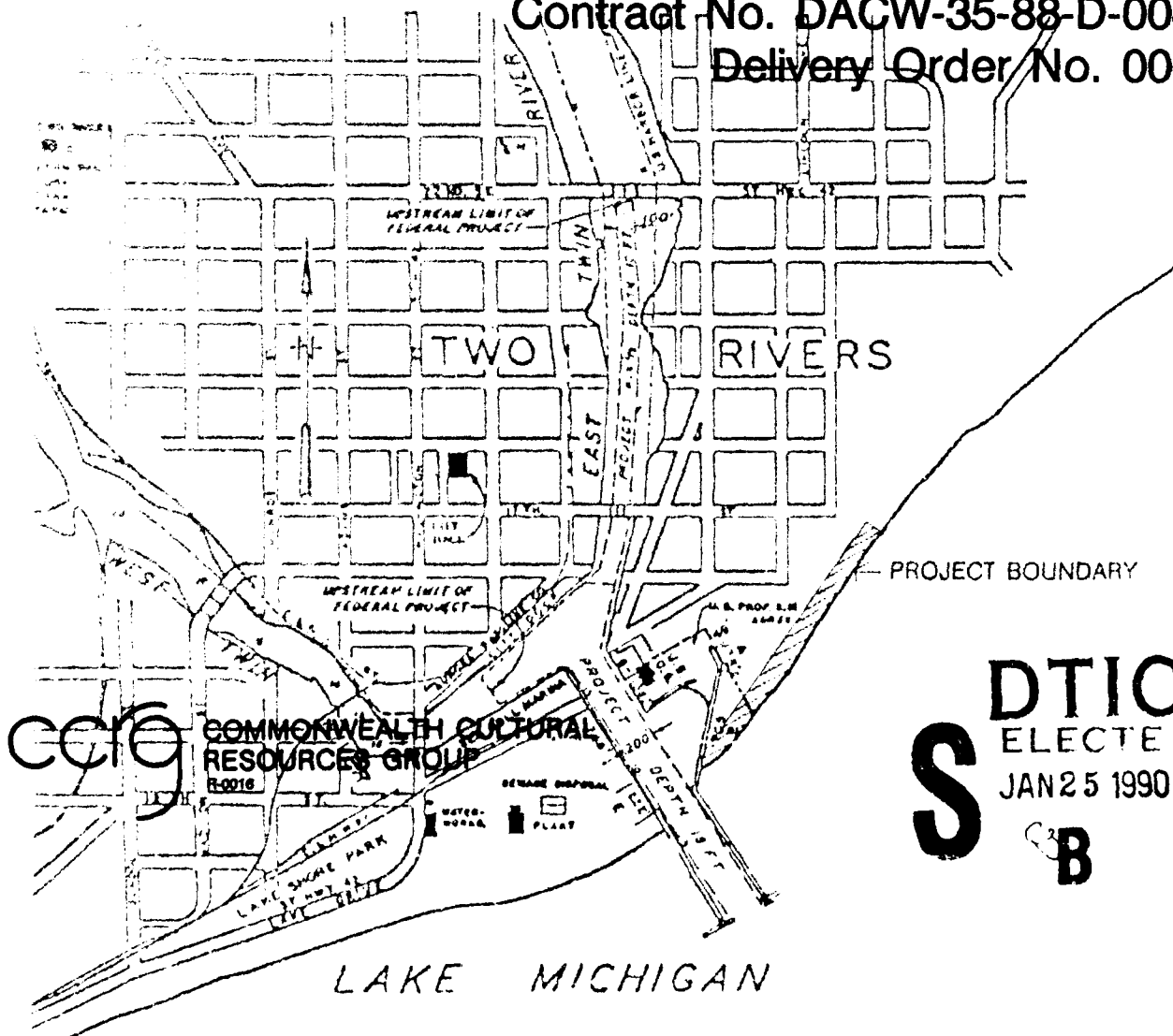


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INTENSIVE ARCHAEOLOGICAL SURVEY TWO RIVERS, MANITOWOC COUNTY, WISCONSIN

Conducted For:
U.S. Army Corps of Engineers - Detroit District
Contract No. DACW-35-88-D-0049
Delivery Order No. 0003



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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) An intensive archaeological survey was conducted at Two Rivers, in Manitowoc County, Wisconsin. The project area lies adjacent to Lake Michigan, a short distance from the confluence of the Twin Rivers with the lake. A dredge disposal beach nourishment site is proposed within the city of Two Rivers. As a result, shovel tests and surface transects were conducted over the project area. No cultural materials were encountered and no <i>over</i>		

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cultural resource sites were reported. It is, therefore,
recommended that the proposed Corps of Engineers' project
be permitted to proceed.

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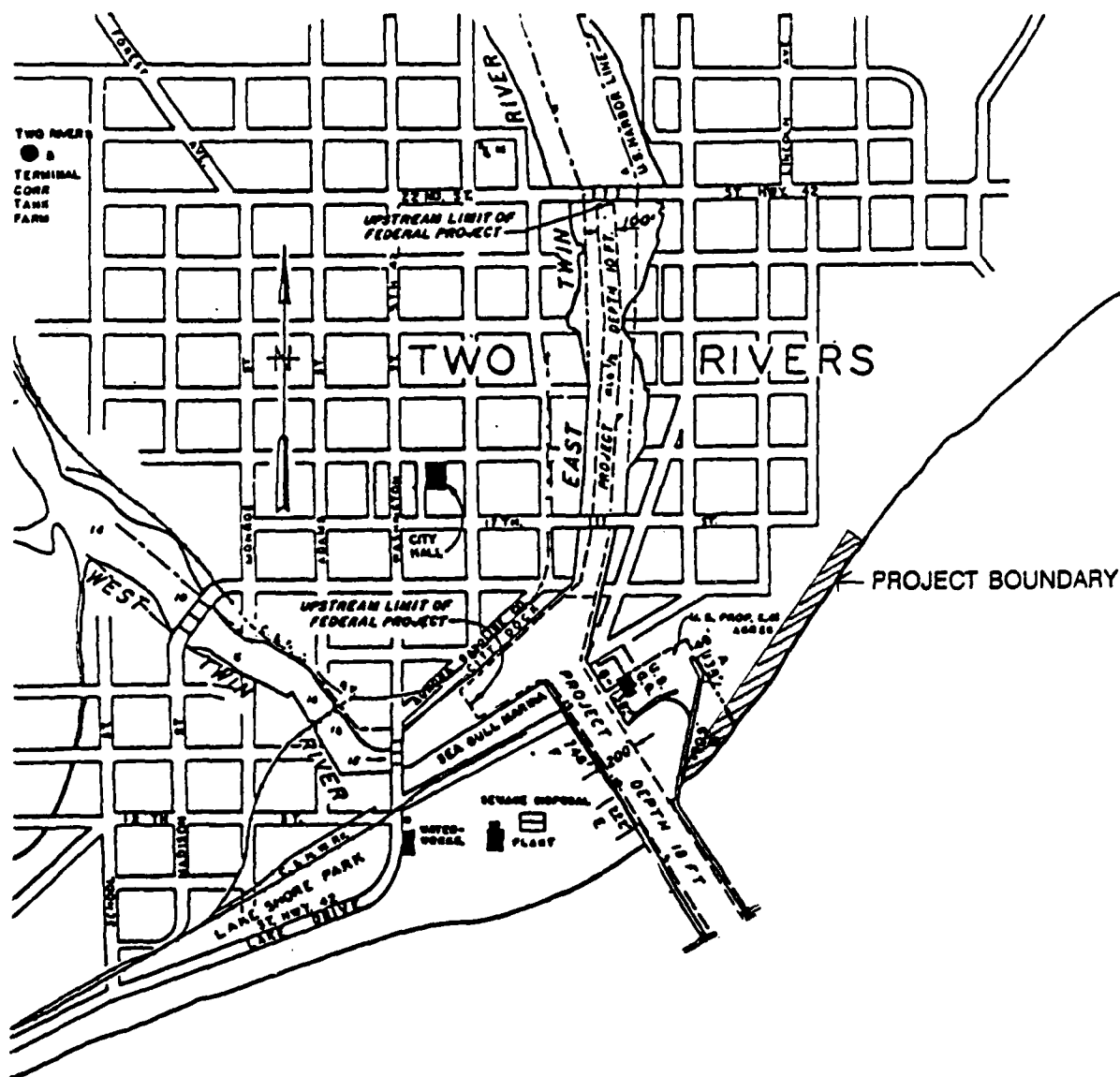
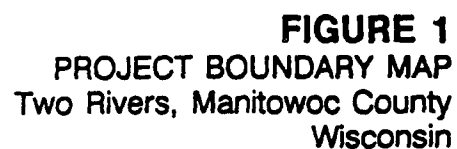
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INTRODUCTION

Commonwealth Cultural Resources Group as part of its continuing services contract with the U.S. Army Corps of Engineers, Detroit District, conducted an archaeological survey at Two Rivers, Wisconsin. The project area is a proposed dredge disposal beach nourishment site located within the city of Two Rivers, Manitowoc County, section 6 T19N R24E, Wisconsin (Figure 1). The project area lies adjacent to Lake Michigan, a short distance east of the confluence of the Twin Rivers with the lake. It begins at the east side of the north breakwater connector and continues northeast between the shoreline and bluffline for 1800 feet in a corridor about 50 feet in width, encompassing approximately 2.0 acres or 8100 square meters. The site surveyed consists entirely of sand beach. Mr. Donald J. Weir served as the Principal Investigator. Field survey was conducted on May 12, 1989, and was directed by William E. Rutter. The field crew was composed of Steven Sanderson and James Dahlberg. A total of 3.0 persondays was expended during fieldwork.



LAKE MICHIGAN

ENVIRONMENTAL BACKGROUND

The study region of Manitowoc County, Wisconsin is situated in the Eastern Ridges and Lowlands Physiographic Province, more specifically a zone termed the Niagara Cuesta (Martin 1932). This area slopes northward toward Green Bay, a total cline of approximately 300 feet. Glacial deposits in the Two River area include Valderan drift northward from the city and deposits attributable to ancestral Lake Michigan south and westward from the city (Paull and Paull 1980:195). Soils are highly variable but are characterized as primarily heavy clay lakebed and lacustrine deposits, grading to sands along the immediate lakeshore; silt loams, somewhat poorly to well drained, are formed in reddish clay till in ground moraines. Glacial drift in the region displays relief ranging between 50 and 150 feet, but the dominant feature in the region is the Niagara Escarpment running from the Door Peninsula through the west shore of Lake Winnebago.

Until recently, the physical characteristics of the Manitowoc area had been attributed to the Valderan/Great Lakean advance; however, recent work indicates that this advance ended north of Manitowoc (Paull and Paull 1980:190). Thus, the reddish deposits through the study region must be assigned to the Woodfordian advance.

Much of the modern drainage pattern of the area was formed during glacial lake stages, primarily associated with glacial Lake Oshkosh which flowed northward via the Fox River when Green Bay was freed from glacial ice (Paull and Paull 1980). Many of the streams of this area occupy valleys much larger than expected for the size of the features, revealing scouring by glacial meltwaters as glaciers retreated. In some areas along the Twin Rivers, the river courses have deepened through the bedrock to expose underlying Silurian dolomite (Paull and Paull 1980:196).

The study region falls within the Canadian biotic province (Dice 1943), an ecological transition zone. Reconstructed vegetation series for the area reveal an oak-hickory dominance with inclusions of oak savannah and prairie in upland locales (Overstreet 1975). Deciduous forests were preeminent in other locales featuring beech, sugar maple, basswood and oaks (Finley 1976).

Animal species, important in prehistoric economies, which inhabit this zone include white tail deer, bear, moose, beaver, and snowshoe hare. The abundant avian resources include wood duck, mallard, mergansers, Canada goose, woodcock, ruffed grouse, and swan. The most important riparian resources of the region in both the aboriginal and Euroamerican subsistence regimen were whitefish, sturgeon, and lake trout, as well as muskellunge, walleye, pike, bass, and perch.

The proximity to the Great Lakes greatly influences the climate of the Manitowoc County area. Reconstructed regional climate trends, of some significance in aboriginal subsistence and settlement patterns, reveal a change from wetter to drier about 9600 years ago, and from warmer to cooler about 3500 years ago (Overstreet 1979). Recent climate trends are characterized by warm humid summers and relatively long, cold winters.

The annual range of temperature between July and January is about 50 degrees, with snow cover approximately 120 days and a frost-free season of about 105 days. Precipitation averages about 32 inches per year with annual seasonal snowfall of 50 to 60 inches (Hole 1976).

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The Paleoindian period begins after 10,500 B.C. in southern parts of the state as mobile hunting bands followed the retreating ice northward and established camps on glacial Lake Algonquin shorelines and lake stage strandlines. These earliest occupants hunted Pleistocene megafauna and produced fluted projectile points. Although sites from the period are rare in northern Wisconsin, and none are reported from Manitowoc County, site 47-CT-30 is reported from Calumet County, east of Lake Winnebago. Artifacts, gathered at the site, were manufactured from cherts and quartzite procured in eastern Ohio or northwestern Illinois, as well as western Wisconsin (Mason 1986:189). Such sites cannot be expected from the specific project area since it occurs at a 590 foot contour and would have been under the impounded waters of glacial Lake Algonquin.

Late Paleoindian hunters, who employed unfluted lanceolate projectile points appear across Wisconsin ca. 8500 B.C. They followed game into lush environments provided by receding levels of the Chippewa-Stanley low water stage of the Lake Michigan basin, as much as 400 feet below present levels. This low water stage continued until about 2500 B.C. (Evenson et. al. 1976) ending with a rapid return to more modern levels which would have inundated most sites from the period, including those offshore of Manitowoc County. However, one of the more important sites from the period, the Renier Site, occurs to the north in adjacent Brown County. This site produced cremation burials in association with Eden and Scottsbluff projectile points (Mason 1986:189; 1981:117-121).

Sites from the Late Paleoindian and ensuing Early Archaic periods represent primarily small diffuse, single occupation episodes. Sites from the Early Archaic period in northern Wisconsin have been grouped into the Flambeau (ca. 7000 B.C.) and Minocqua (ca. 6000-5000 B.C.) phases (Salzer 1974). The appearance of the Archaic coincides with the shift to an essentially modern climate in the region. The Early Archaic stage (to ca. 3000 B.C.) is almost unrepresented in the Wisconsin site assemblage. This may be a reflection of rising lake levels or the ephemeral nature of the occupations.

The Middle Archaic period (ca. 3000 B.C.-1200 B.C.) in the northern Great Lakes is marked by large side-notched projectile points and the appearance of the Old Copper culture (Mason 1981). Of the three Old Copper sites professionally excavated, two components are in the general project region. The Oconto site in Oconto County and the Reigh Site in Winnebago County produced a variety of copper artifacts associated with burials. Although no large sites have been reported in Manitowoc County, a number of Old Copper artifacts have been reported from the area and are curated by the State Historical Society (Stoltman 1986:223).

The Late Archaic period (1200 B.C.-1 B.C.) is marked by a near absence of copper artifacts and a switch from side-notched to stemmed-forms of projectile points. The subsistence strategy for the period appears to have been based on mobile groups engaging in a seasonal round. The well known Red Ochre cremation complex occurs across Wisconsin during this period, apparently a stylistic overlay among a number of cultural groups. A number of small sites that indicate general hunting and gathering occupations, and date to this period occur across Manitowoc County.

The Early Woodland period is marked by the appearance of cultigens, mound building, and ceramics. In northern Wisconsin, this period is generally recognized to begin after 1 A.D. and is poorly represented with almost all state data derived from more southerly components (Boszhardt et. al. 1986). Sites in Ozaukee and Door counties have produced crude ceramics with radiocarbon dates as early as the sixth century B.C. (Boszhardt et. al. 1986:253). None of the sites reported in the literature were recorded in Manitowoc County.

The Middle Woodland period (ca. 100 B.C.-A.D. 500) is defined by the presence of Hopewell or Hopewellian ceramics, burial mounds, and material culture shifts (Mason 1981). Hopewell sites are confined to the southern part of the state. Middle Woodland occupations in the northern part of the state are poorly understood (Salzer 1986). The most important northern expressions relate to North Bay culture. Defined at the Mero and Heins Creek sites on the Door Peninsula, they display use of local cherts and a lacustrine oriented economy (Mason 1966). No professional investigations pertaining to the Middle Woodland period were encountered for the study area during the literature search for Manitowoc County.

The Late Woodland period (ca. A.D. 500 to Contact) is a complex period throughout Wisconsin with a number of cultural expressions and developments. The study area is included in the area defined for the Effigy Mound culture. Marked by distinctive mounds and cord-roughened globular vessels, the nearest well-known site to the Two Rivers area is the High Cliff Mound Group in Calumet County (Hurley 1986:285, 292). However, the Late Woodland expression most explicitly identified with the Manitowoc County vicinity is the Heins Creek culture, which apparently developed out of the preceding North Bay complex (Mason 1966). Material culture includes cord-roughened ceramics and small, triangular projectile points associated with an economy heavily focused on fishing in Lake Michigan (Salzer 1986:306).

Oneota Upper Mississippian occupations occurred in northern Wisconsin after ca. A.D. 900. Their subsistence strategies focused on hunting, gathering, and fishing because of the relatively short growing season. One of the most prominent expressions is the Lake Winnebago Phase, ca. A.D. 950-1500, extending from Lake Winnebago eastward to the Lake Michigan shore, while the Green Bay Phase spread across the mouth of Green Bay to the north (Gibbon 1986:315-318). Close to the study area, the Point Sable site in Brown County is an excellent example of the former culture while Door County's Mero site represents the latter (Mason 1981).

PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES

A number of archaeological sites are recorded in the Two Rivers project vicinity in the Archaeological Site Files maintained at the Wisconsin State Historical Society in Madison. Although none are recorded within the limited two-acre area presented by the proposed project (Figure 1), and most apparently have been destroyed, these previously recorded sites are presented here to provide an insight into the cultural history of the immediate project vicinity.

A majority of these archaeological sites are the result of archival and historical sources supplied by early residents of the city. Many of these sites are no longer extant, in fact, in discussion of the Indian mounds of the region, the 1912 Manitowoc County History notes that the county "is not particularly rich in Indian mounds, while those once known have been all practically destroyed" (Falge 1912:12).

Site 47MN48, situated at the junction of Jefferson and Pine streets, is an historic Indian and Euroamerican cemetery, located about where St. Luke's Catholic Church stands. Several burials were unearthed while excavating for a sewer at the street intersection. This site was recorded by C.E. Brown in 1912.

Site 47MN187, recorded by C. E. Brown in 1906, is Na-na-bou-jou's Village, a Potawatomi village site, situated on the point of peninsula of land between the East and West Two Rivers.

Site 47MN188, the Main Street Cemetery site, is situated near the junction of Jefferson and Main streets. It is an Historic period Indian cemetery which was "graded down in 1850" during civic improvements.

Site 47MN256 is situated on the site of St. John's German Lutheran Church at the southeast corner of Walnut and East Park Streets. This site is a "dance grounds," recorded in the county history (Falge 1912) as the place where over 300 Native Americans danced in 1849.

Site 47MN257, at the coal dock north of Lake Street, is a village site situated on the south side of the West Twin River at the harbor inlet. The 1911 county history (Falge 1912) reports that a "large number of wigwams" were located here.

Site 47MN258 is a village/camp situated on the third lot east from the corner of Monroe and Main streets, south of Main Street on the north side of the river. County history (Falge 1912) notes "a large number of wigwams where Bartz's Blacksmith shop is located."

Site 47MN269, the Cache #1 site, is an implement cache site.

Site 47MN270, the Cache #2 site, is an implement cache site. Both 269 and 270 may refer to "caches found on the nearby Hathaway Estate".

HISTORICAL BACKGROUND

When French traders and missionaries first penetrated the region, the Manitowoc area was inhabited by Chippewa and some Potawatomi. The Manitowoc area did not witness an intensive Early Historic occupation because it was somewhat removed from the primary channel of Euroamerican influence, the Green Bay/Fox/ Wisconsin River route. However, LaSalle probably viewed the Two River Harbor when he sailed Lake Michigan in the Griffon in 1679, while Jesuits, St. Cosme and Henry de Tonti, sailed along the west shore of the lake in 1699 when hostile Indians blocked the usual Green Bay passage.

In 1779 the British sloop, *Felicity*, noted the presence of an Indian agent, a Mr. Fay, at "Deux Rivers" (Falge 1912:28). Other reports indicate that several permanent villages in the area included one at Two Rivers; a Potawatomi village is documented at Two Rivers in 1804 (Falge 1912:20; site 47MN187). Such Indian activity perhaps explains why Jean Vieau of the Northwest Fur Company opened a trading post there in 1795. Indians were reported spear fishing in great numbers at the site in 1818, an area where later settlers reported that the shifting beach dune sands often uncovered "copper relics" and Euroamerican trade goods (Falge 1912:20).

The Indian village at Two Rivers was reported to extend along the sandy shore from Two Rivers for a distance of nine miles at intervals to a point one mile beyond the town line at Two Creeks. The most intensive occupation occurred at the confluences of streams with Lake Michigan including the Twin Rivers (Falge 1912:20). This would place the village squarely across the present project study parcel. The Twin Rivers with confluence at Two Rivers are named Mishicot, for an Ottawa chief, and Neshoto from a Chippewa word meaning "twin".

Although the Ottawa claimed the Manitowoc County area, the Menominee were in actual control, a fact recognized by the U.S. Government in a treaty signed at Green Bay in 1831 which ceded the eastern shore of what is now Wisconsin. The county was at various times a part of the Northwest Territory (1789), Illinois Territory (1809), Michigan Territory (1818), and Wisconsin Territory (1836). It was a part of Brown County until set off on December 7, 1836.

The first permanent Euroamerican settler, Jacob Conroe, did not arrive in the county until 1835. Although much of the early transportation revolved around lake travel, land links soon followed, opening up the area for settlement. From 1846 to 1847 the county population doubled to 1,200, and by the census of 1850 it had reached 3,702; by 1860 it was 23,000 (Falge 1912:37).

TWO RIVERS HISTORY

The first land entries in the Two Rivers area occur in 1835. By 1837 Judge Lawe, Robert Eberts, and John Arndt operated a mill at the junction of the Mishicot and Neshoto Rivers. Although it is reported that 40 people lived at Two Rivers by 1837 (Falge 1912:35), the financial Panic of that year forced closing of the mill and slowed growth and development. However, in 1840 a territorial road was completed, linking the Two Rivers area with Lake Winnebago, and another road was completed to Manitowoc, stimulating further progress.

The fisheries, which started prior to the Panic, continued to develop, the mill reopened, and Two Rivers became an important center for logging in the region. In 1845, H. H. Smith arrived in Two Rivers and began operation of the mill. He also initiated other industries which served as a catalyst for the town's development for the next several decades. The J. P. Clarke Fishing Company of Detroit operated a fishery which harvested

Great Lakes fish for shipment to the lower lakes. Falge (1912:410) states that it was observed that the east side of the river at the bay, the "French side", was barren of buildings "with the possible exception of a fish shanty or two at the beach." This is of potential interest archaeologically during this period.

An outbreak of cholera devastated the town in 1851, with some reports indicating that 50 of the 300 people there died, a "higher proportion than any other town in the United States" (Falge 1912:42, 402). Still, the town recovered and industry advanced. The county's first brewery opened in the town and commerce increased, encouraged by the fact that the twin rivers were navigable for several miles upstream. The village of Two Rivers was set off from the township in 1858, and was chartered as a city in 1878. Lumbering, shingle mills, farm goods, and fisheries formed the basis of the expanding economy, and the town's population increased from 2,870 in 1890, to 3,784 in 1900, to 4,850 in 1910 (Falge 1912:37). It emerged in the twentieth century as one of the leading economic centers of Manitowoc County. The trend continued and was augmented by an increasing tourist trade until the present time.

METHODOLOGY AND FIELD SURVEY

Survey commenced east of the Coast Guard station at the north breakwater, near the Two Rivers confluence with Lake Michigan. Although the survey parcel is described as approximately 50 feet wide and 1800 feet long, the defining lake shore and sand bluffs are about 25 meters apart at the west end of the survey zone. The entire parcel consists of sand beach. Field examination was implemented through systematic surface examination, shovel testing and coring with a hand auger. Since no standing structures occur within the survey parcel, no photo documentation, architectural field descriptions or completion of inventory cards was required.

Survey methodology consisted of surface examination of the active shoreline as well as inspection of the beach between shovel tests. The primary mechanism of archaeological survey on this project was shovel testing supplemented by augering or coring. Tests were placed in transects 10 meters apart, employing a 10 meter interval. All tests were excavated to a depth of at least 70 centimeters below surface except those where the water table was encountered at a lesser depth. All soils removed from the tests were passed through 1/4 inch mesh hardware cloth screen. Walls of each approximately 30x30 centimeter test were troweled to examine profiles, and notes were taken on stratigraphy. Occasionally coring was implemented in the base of a shovel test to control for any potential deeply buried cultural horizons. All tests were then immediately backfilled.

Shovel tests began about 10 meters east of the Corps of Engineers' breakwater, in two 10 meter interval transects, with transect A about 5 meters from the Lake Michigan shoreline and transect B about 10 meters north of A, between 5 and 10 meters south of the edge of the foredune/bluffs. Transect B extended for about 200 meters east from the breakwater, at which point the beach narrowed and the single Transect A was continued. Tests were completed to an average depth of 70 to 75 centimeters below surface, although about 400 meters east of the breakwater the beach elevation dipped somewhat and the water table was consistently encountered at 50 to 55 centimeters below surface. Tests were closed after water percolated in.

Test stratigraphy was amazingly consistent, composed of pale brown (Munsell 10YR8/4) coarse-grained sands with occasional water-rounded beach pebbles. The only divergence from this unremarkable stratigraphy occurred in tests about 150 meters east of the breakwall in transect B. The divergence presented what can most accurately be described as "varve"-like dark lines in test walls occurring in bands 1 to 3 millimeters thick and separated by a similar width of beach sand. These clusters of bands initially appeared at depths ranging from 15 to 30 centimeters below surface with the zone of bands occurring for 5 to 10 centimeters until disappearing.

These striations did not appear to be cultural. Enlarged tests exposed a horizontal plane that revealed the discoloration was rather discontinuous and ephemeral. Rather, the bands appeared to be aeolian or lacustrine deposited. Indeed, examination of

the present Lake Michigan shore line revealed areas of black silty deposition on the active beach which may be the result of wave-churned silt and sediment deposition on the sand. Testing continued with only occasional dark banding noted after the initial 175 meters.

RESULTS OF SURVEY AND RECOMMENDATIONS

No cultural materials were encountered in the shovel tests. Nothing was recovered during surface transects of the total exposure offered by the beach and active shoreline, except for a few pieces of late historic artifacts. Artifacts, such as bottle glass, rusty metal, and slip glazed stoneware were not collected. No cultural resource sites were recorded. It is recommended that the proposed Corps of Engineers' project be permitted to proceed.

REFERENCES CITED

- Boszhardt, Robert F., Reid A. Bryson, and John E. Kutzbach
 1986 The Early Woodland Stage. In Introduction to Wisconsin Archaeology. Background for Cultural Resource Planning. The Wisconsin Archaeologist 67(3-4):243-262.
- Dice, L. R.
 1943 The Biotic Provinces of North America. University of Michigan Press, Ann Arbor.
- Evenson, E. B., W. R. Farrand, W. R. Mickelson, and D. F. Eschmann
 1976 The Great Lakes Substage: A Replacement for Valderan in the Lake Michigan Basin. Quaternary Research 6:411-424.
- Falge, Dr. Louis
 1912 History of Manitowoc County, Wisconsin. Goodspeed Historical Association, Chicago. Reprinted by Manitowoc County Genealogical Society, Manitowoc, 1976.
- Finley, Robert
 1976 Original Vegetation of Wisconsin. Map published by University of Wisconsin-Extension.
- Gibbon, Guy E.
 1986 The Mississippian Tradition: Oneota Culture. In Introduction to Wisconsin Archaeology. Background for Cultural Resource Planning. The Wisconsin Archaeologist 67(3-4):314-338.
- Hole, Francis D.
 1976 Soils of Wisconsin. The University of Wisconsin Press, Madison.
- Hurley, William
 1986 The Late Woodland Stage: Effigy Mound Culture. In Introduction to Wisconsin Archaeology. Background for Cultural Resource Planning. The Wisconsin Archaeologist 67(3-4):283-301.
- Martin, Lawrence
 1932 The Physical Geography of Wisconsin. Wisconsin Geological and Natural History Survey Bulletin XXXVI, Second Edition, Madison.
- Mason, Ronald J.
 1966 Two Stratified Sites on the Door Peninsula of Wisconsin. Anthropological Papers, No. 26. Museum of Anthropology, University of Michigan, Ann Arbor.
- 1981 Great Lakes Archaeology. Academic Press, New York.

- 1986 The Paleoindian Tradition. In Introduction to Wisconsin Archaeology. Background for Cultural Resource Planning. The Wisconsin Archaeologist 67(3-4):181-208.
- Overstreet, David F.
- 1975 Archaeological Survey for the Fox River Navigation Project Disposal Sites. Reports of Investigations, No. 13. Great Lakes Archaeological Research Center, Waukesha, Wisconsin.
- 1979 Cultural Resources Overview of the Chequamegon National Forest. Volume 1. The Chequamegon National Forest in Prehistory and History. Reports of Investigations, No. 50. Great Lakes Archaeological Research Center, Waukesha, Wisconsin.
- Paull, Rachel K. and Richard A. Paull
- 1980 Field Guide. Wisconsin and Upper Michigan. K/H Geology Field Guide Series, Kendall/Hunt Publishing Co., Dubuque, Iowa.
- Salzer, Robert J.
- 1974 The Wisconsin North Lakes Project: A Preliminary Report. In Aspects of Upper Great Lakes Anthropology: Papers in Honor of Lloyd A. Wilford, edited by Elden Johnson. Minnesota Prehistoric Archaeology Series, No. 11. Minnesota Historical Society, St. Paul.
- 1986 Other Late Woodland Developments. In Introduction to Wisconsin Archaeology. Background for Cultural Resource Planning. The Wisconsin Archaeologist 67(3-4):302-313.
- Stoltman, James B.
- 1986 The Archaic Tradition. In Introduction to Wisconsin Archaeology. Background for Cultural Resource Planning. The Wisconsin Archaeologist 67(3-4):207-238.